

# Cranberry

## Crop Management Newsletter

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### FALL CHORES

Now that harvest is complete there is time to take care of a few fall chores prior to hunting season and the winter flood. Here are some ideas of things that need to be done yet this fall.

1. Thoroughly clean all equipment used for harvest. Use a pressure washer to clean debris from tractors, beaters, blowers, conveyers, berry pumps, booms, trucks, gondolas, etc. As you clean note anything that needs to be repaired, re-engineered, or painted.
2. Thoroughly clean the machine shop and machinery storage areas. Throw out or recycle junk that is no longer useful to you. Don't let junk pile up around your farm. Inventory fasteners, welding supplies, lubricants, solvents, filters, etc. Do you have needed items on hand, thus reducing emergency trips to town?
3. Take a few moments to review your production records such as fertilizer and pesticide applications and make sure they are legible and accurate. Make a copy to store in another secure location besides your primary office.
4. Review the expiration dates on the Pesticide Applicator licenses for you and your workers. Do any expire in 2008 or 2009? If so, take steps to renew these licenses. Pesticide applicator training will be offered once again at the 2008 Cranberry School.
5. Take a few moments to consider harvest. What went well? What didn't work as well that is under your control? Did everyone know what they were supposed to do? Was employee orientation and training sufficient? Did vital equipment break down? If so, what can be done to avoid similar problems next year?
6. Consider having an employee roundtable where all are free to reflect on the 2008 crop year providing feedback on what went well and what went poorly. Invite employees to offer suggestions of what might be done differently in the future. Not all good ideas come from management (or the University).
7. Review your nutrient management plan. Did your actual application of nutrients follow your plan? How did you decide to vary from your plan? What criteria did you use to make your decision? How will this change your plan for the future?

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Thanks for your support over the years. This will be my last Cranberry Crop Management Newsletter.

*Teryl Roper*

8. Have you mapped where you had problems with specific weeds in 2007? If you know where the troublesome weeds were in 2007 can you use that information to make better weed management decisions in 2008?
9. Ponder mistakes that were made with regard to pest management, personnel management, fertilizer, irrigation, drainage, etc. What policies or approaches could change next year to good advantage?
10. Inventory any fertilizer or pesticides that remain from 2008 or earlier. Make sure pesticides are appropriately stored in a clean, dry, secure location. Ideally pesticides will be stored in a location separate from machinery, etc.
11. Check the oil, tire pressure, brake fluid, steering fluid and other hydraulics on all equipment and fill as necessary.
12. Continue to monitor weather through the fall and be prepared to flood beds or irrigate if precipitous temperature drops are forecast.
13. Set aside January 20-21 2009 for the Wisconsin Cranberry School and plan to attend this important industry meeting. Cranberry School will be held at the Stevens Point Holiday Inn again.

Taking care of fall chores will give you peace of mind and will ensure that your operation is ready to come back to life in the spring. Taking some management time to reflect on 2008 will pay dividends in 2009.

*Teryl Roper*

I shall be telling this with a sigh  
Somewhere and ages hence:  
Two roads diverged in a wood, and I—  
I took the one less travelled by  
And that has made all the difference.

*Robert Frost*

## PESTICIDE STORAGE

With harvest finished now is a good time to think about properly storing remaining pesticides through the winter so they will be efficacious next year.

Most growers use existing buildings to store pesticides. However, if you mix and load large quantities of pesticides, consider building a dedicated facility. Plans for these buildings are available through your county Extension office.

A pesticide storage facility should have a cement floor that is impermeable and easy to sweep or wash. The area should be well lighted and ventilated. Smoke alarms or carbon monoxide detectors should also be installed.

Protect stored pesticides from freezing. Ideally, a storage facility should be well insulated and have sufficient heat provided to keep the temperature above freezing. Some pesticides (particularly liquid formulations) will break down or separate, making mixing difficult or impossible if allowed to freeze.

Store herbicides, insecticides and fungicides in separate areas, if possible. Volatile herbicides may contaminate other pesticides if the containers are not securely sealed.

Store dry chemicals such as powders and boxes on pallets or shelves to keep the packages dry and the labels legible. Don't store dry materials on shelves below liquids. Any liquid spills would contaminate lower dry chemicals. Metal containers should be placed on pallets over the winter to keep them dry and to prevent them from rusting.

Always store pesticides in their original containers; labels should be intact, legible and plainly visible. Check stored materials periodically to make sure the containers are secure and the labels are still legible. Don't transfer pesticides to another container that held a different product.

When pesticides arrive on the marsh, mark the date of purchase or delivery on the container. This will help you rotate your stock. Most manufacturers recommend a

shelf life of no more than 2 years. Once a package is opened, the shelf life is substantially reduced.

Make sure your pesticide storage area is secure. This will reduce the risk to family members and unauthorized employees, but will also reduce the chance of injury or theft. Make sure animals can't get to stored pesticides. Don't store feeds, seed or baits in the same area with pesticides.

Mark the exterior of the storage facility clearly that pesticides are stored inside. This will deter people who shouldn't be in the facility and will help emergency response personnel in the case of a fire or flood. Placards are available commercially.

Storing pesticides properly through the winter will ensure they are effective next year. Storing them alone in a dedicated facility gives you greater management flexibility and will protect other farm assets if there were a fire. Storing pesticides alone just makes good sense.

*Adapted from "Pest Management Principles for the Commercial applicator--Fruit Crops"*

## **BE PREPARED...Before the Storm Strikes**

At home and work...

Primary concerns are the potential loss of heat, power, telephone service, and a shortage of supplies if storm conditions continue for more than a day.

Have available:

- Flashlight and extra batteries.
- Battery-powered NOAA Weather and portable radio to receive emergency information. These may be your only links to the outside.
- Extra food and water. High energy food, such as dried fruit or energy bars, and food requiring no cooking or refrigeration is best.

- Extra medicine and baby items.
- First-aid supplies.
- Heating fuel. Fuel carriers may not reach you for days after a winter storm.
- Emergency heating source, such as a fireplace, wood stove, space heater, etc.
- Fire extinguisher and smoke detector.
- Test units regularly to ensure they are working properly.

### **When CAUGHT in a Winter Storm at home or in a building:**

- Stay inside. When using ALTERNATIVE HEAT from a fireplace, wood stove, space heaters, etc.:
- Use fire safeguards.
- Properly ventilate.
- No heat:
- Close off unneeded rooms.
- Stuff towels or rags in cracks under doors.
- Cover windows at night.
- Eat and drink. Food provides the body with energy for producing its own heat. Keep the body replenished with fluids to prevent dehydration.

### **When CAUGHT in a Winter Storm outside:**

#### **Find shelter:**

- try to stay dry.
- cover all exposed parts of the body.

#### **No shelter:**

- Prepare a lean-to, wind-break, or snow cave for protection from the wind.
- Build a fire to heat and attract attention.
- Place rocks around the fire to absorb and radiate heat.

- Do not eat snow. It will lower your body temperature. Melt it first.

#### **Dress to fit the season:**

- Wear loose-fitting, light-weight, warm clothing in several layers. Trapped air insulates. Layers can be removed to avoid perspiration and subsequent chill. Outer garments should be tightly woven, water repellent, and hooded. Wear a hat. Half your body heat loss can be from your head. Cover your mouth to protect your lungs from extreme cold. Mittens, snug at the wrist, are better than gloves. Try to stay dry.

#### **In cars and trucks:**

- Plan your travel and check the latest weather reports to avoid the storm!
- Fully check and winterize your vehicle before the winter season begins.
- Carry a winter storm survival kit:
- Blankets/sleeping bags; flashlight with extra batteries; first-aid kit; knife; high-calorie, non-perishable food; extra clothing to keep dry; a large empty can and plastic cover with tissues and paper towels for sanitary purposes; a smaller can and water-proof matches to melt snow for drinking water; sack of sand (or cat litter); shovel; windshield scraper and brush; tool kit; tow rope; booster cables; water container; compass and road maps.
- Keep your gas tank near full to avoid ice in the tank and fuel lines.
- Let someone know your timetable and primary and alternate routes.

#### **When CAUGHT in a Winter Storm in a car or truck:**

- Stay in your car or truck. Disorientation occurs quickly in wind-driven snow and cold.

- Run the motor about ten minutes each hour for heat:
- Open windows a little for fresh air to avoid carbon monoxide poisoning.
- Make sure the exhaust pipe is not blocked.

#### **Make yourself visible to rescuers:**

- Turn on the dome light at night when running the engine.
- Tie a colored cloth (preferably red) to your antenna or door.
- Raise the hood indicating trouble after snow stops falling.

Exercise from time to time by vigorously moving arms, legs, fingers, and toes to keep blood circulating and to keep warm.

*From the National Weather Service*

One sure way to make life miserable is to live in a manner that you can't afford.

*Author Unknown*

Money honestly made and honestly spent is as nearly the root of all physical comfort as money dishonestly made and dishonestly spent is the root of all evil

*Author Unknown*

It is good to have money and the things that money can buy, but it's good, too, to check up once in a while and make sure you haven't lost the things that money can't buy.

*George Horace Lorimer*

One of the things the news media does very well is to make a minority look like a majority.

*Author Unknown*

If you must tell all you know, make sure that's all.

*Author Unknown*

## REFLECTIONS

I've now been gone from Wisconsin for about 4 months. I've had some marvelous experiences as I've transitioned from a regular faculty Extension appointment to an administrative appointment as Dept. Head at Utah State University. I work with good people who mostly work hard to teach students, extend the resources of USU to the citizens of the state, and do research to extend the frontiers of science in plants, soils, and climate. Each day brings new experiences. The change has been wonderful for me professionally and personally. We are greatly enjoying living closer to our families.

Now that I've had some time to reflect on my Wisconsin experience I'd like to share some of my observations with you. Consider this my parting shot at the Wisconsin cranberry industry. For the most part I enjoyed working with cranberry growers. I had great relationships with many of you. You shared what you knew and had observed with me and I tried to share the results of our research with you. I understand that most of you have had different experiences than I have had. You see the details of operating a cranberry marsh and you focus on the day-to-day things that need to be done. Your expertise crosses academic disciplines. You have to understand diseases, insect pests, weed pests, irrigation, nutrition, personnel management, along with mechanics and ag engineering. I focused primarily on crop physiology and nutrition. I didn't view cranberry production as broadly as I might have, but I was able to delve into a few areas deeply. That gave me an advantage in the areas that I studied.

I am convinced that many cranberry growers are applying more fertilizer than is needed to produce a full crop. Fertilizer prices have increased during 2008 to levels never seen before. Softening oil prices may lead to softening of fertilizer prices, but that will not be the long term trend.

The cost of the fertilizer is only a fraction of the total cost of putting nutrients into the environment. The total cost includes, labor, fuel, depreciation, plus the cost of environmental degradation associated with producing the fertilizer, shipping it to your location, and having excess nutrients in the environment. This is especially true for phosphorus. Applying fertilizer as cheap insurance is not smart business.

The cranberry industry has succeeded in large measure because people have been willing to work together for the common good of the industry. They have set aside what might be best for their individual operations so the entire industry could succeed. Examples of this include the federal market order (CMC), the Wisconsin Cranberry Board, and cooperative marketing. I see less of this currently than I saw even 20 years ago. Growers question the need for the marketing order and the research conducted through WCB. WCB funds leverage huge investments by the University of Wisconsin and other institutions. You get far more than you pay for directly.

The Wisconsin industry in particular has invested in good professionals to represent your industry in the state legislature and in congress. WSCGA does a great job of supporting the industry as a whole. If you don't belong to WSCGA you are a freeloader who is enjoying the benefits of the association while not shouldering the costs or responsibility of doing so. The cost of membership is not high, but the benefits are huge.

I see a fair bit of gullibility in the industry. Sweet talking salespeople and consultants talk you into doing things for which they have no data to back up their claims. You spend good money for products that do no good. Consultants advise you to do things that are counterproductive and that distract you from pursuing the most important operations on your farm. I have seen growers apply unnecessary fertilizer

while ignoring weedy beds. Return on investment would have been much greater from good weed control than for fertilizer application. Ask to see data from salespeople and consultants. Experience and anecdotes cannot replace data from replicated research trials.

I have been told that my position has been released so that the Department of Horticulture can search for a replacement. That is great news. WSCGA lobbied UW-Madison hard for this position. With any luck another horticulturist with new ideas and renewed energy will be serving your industry by mid-2009. I hope that you will welcome this new person into your industry the same way you welcomed me. Do all you can to support and help this person to succeed.

After 20 years of working with the cranberry industry I have developed some expertise and I believe that I have something to still offer the industry. I am in the process of setting up a consulting business. If you are interested in my services I'd like to visit with you. I think we could set up a relationship that would benefit both of us. I can be contact at 435-797-8698 or 435-232-8596.

*Teryl Roper  
Professor and Head, Dept. of Plants, Soils, and  
Climate, Utah State University*

## 2009 WISCONSIN CRANBERRY SCHOOL

The annual Wisconsin Cranberry School will be held at the Stevens Point Holiday Inn on January 20-21, 2009. Planning is already underway for this event. A variety of topics will be presented including insect management and the use of Intrepid in Wisconsin. Once again there will be tracks for managers and workers. Pesticide Applicator Training will be held during the morning of the first day of the school. A trade show will be on Tuesday January 20 with many booths from companies that support the cranberry industry.

The final program and registration materials will be sent to growers in early December. Returning registration materials early helps WSCGA plan for the meeting.

The Wisconsin Cranberry School is a joint effort of the Wisconsin State Cranberry Growers Association and the University of Wisconsin-Extension. We encourage all growers to participate in this important educational opportunity.

### HAPPY THANKSGIVING!

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